Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled)

2. (currently amended) ~~Receiver (10)~~ A transceiver according to ~~claim 1,~~ claim 7, wherein ~~(10)~~ the receiver further comprises an analogue to digital converter ~~(35)~~ for digitizing the frequency multiplexed signal ~~(S5)~~.

3. (currently amended) ~~Receiver (10)~~ A transceiver according to claim 2, wherein the receiver ~~(10)~~ further comprises demultiplexing ~~(36)~~ means for demultiplexing the digitized frequency multiplexed signal ~~(S6)~~ into at least a first ~~(S7)~~ and a second ~~(S8)~~ signal.

4. (canceled)

5. (currently amended) ~~Transmitter (20)~~ A transceiver according to ~~claim 4,~~ claim 7, wherein the at least ~~first (S12) and second (S11)~~ third and fourth signals are digital signals.

6. (currently amended) ~~Transmitter (20)~~ A transceiver according to claim 5, wherein the multiplexing means ~~(41)~~ comprises a digital to analogue converter ~~(53)~~ for converting the sequentially multiplexed ~~first and second~~ third and fourth digital signals ~~(S12d)~~ to a frequency multiplexed signal ~~(S12)~~.

7. (currently amended) Transceiver ~~(50) comprising~~ comprising:

a receiver ~~(10)~~ that is arranged to simultaneously receive at least a first radio frequency signal ~~(S1)~~ having a first frequency band ~~(1)~~ and a second radio frequency signal ~~(S3)~~ having a second frequency band ~~(3)~~ that is at least partly overlapping the first frequency band ~~(1)~~, the receiver ~~(10)~~ comprising:

signal conversion means ~~(32,33)~~ for frequency down-converting the at least first ~~(S1)~~ and second radio frequency signals ~~(S3)~~ to at least a first ~~(S2)~~ and a second ~~(S4)~~ lower frequency signal; and

multiplexing means ~~(34)~~ for sequentially multiplexing the at least first ~~(S2)~~ and second lower ~~(S4)~~ frequency signals into a frequency multiplexed signal ~~(S5)~~; and

a transmitter that is arranged to simultaneously transmit at least a third radio frequency signal having a third frequency band and a fourth radio frequency signal having a fourth frequency band that is at least partly overlapping the third frequency band, the transmitter comprising:

signal multiplexing means for sequentially multiplexing at least a third and a second signal into a frequency multiplexed signal;

demultiplexing means for demultiplexing the frequency multiplexed signal into at least a third and a fourth lower frequency signal; and

frequency up-converting means for frequency up-converting the third lower frequency signal into the third radio frequency signal and for frequency up-converting the fourth lower frequency signal into the fourth radio frequency signal.

8. (canceled)

9. (currently amended) Method for operating a transceiver, the method comprising:

receiving at least a first radio frequency signal ~~(S1)~~ having a first frequency band ~~(1)~~ and a second radio frequency signal ~~(S3)~~ having a second frequency band ~~(3)~~ that is at least partly overlapping the first frequency band ~~(1), the method comprising the steps of~~ receiving further comprises:

frequency down-converting the at least first ~~(S1)~~ and second ~~(S3)~~ radio frequency signals into at least a first lower frequency signal ~~(S2)~~ and a second lower frequency signal ~~(S4)~~; and

sequentially multiplexing the at least first ~~(S2)~~ and second ~~(S4)~~ lower frequency signals into a frequency multiplexed signal ~~(S5)~~; and

transmitting at least a third radio frequency signal having a third frequency band and a fourth radio frequency signal having a fourth frequency band that is at least partly overlapping the third frequency band, wherein transmitting further comprises:

sequentially multiplexing the at least third and a fourth signals into a frequency multiplexed signal;

demultiplexing the frequency multiplexed signal into at least a third and a fourth lower frequency signal; and

frequency up-converting the third lower frequency signal into the third radio frequency signal and the fourth lower frequency signal into the fourth radio frequency signal.

10. (canceled)

11. (new) The method of claim 9, further comprising digitizing the frequency multiplexed signal.

12. (new) The method of claim 11, further comprising demultiplexing the digitized frequency multiplexed signal into at least a first signal and a second signal.

13. (new) The method of claim 9, further comprising converting the sequentially multiplexed third and fourth digital signals to a frequency multiplexed signal.